

CERTIFICATION OF CALIBRATION

ISSUED BY: QED Environmental Systems, Inc. Services Facility

Date Of Calibration: September 16, 2016

Certificate Number: G503906_8/30494



PJLA
Calibration

No. 66916

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Approved By Signatory

Dan McCarty
Laboratory Inspection



LANDTEC

QED Environmental Systems, Inc. Services Facility,
2355 Bishop Circle West, Dexter, MI 48130
www.qedenv.com

Customer: Pine Environmental

Description: Gas Analyser

Model: GEM5000

Serial Number: G503906

Accredited Results:

Methane (CH4)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	5.0	0.42
15.0	15.0	0.66
50.0	49.7	1.03

Carbon Dioxide (CO2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
5.0	4.9	0.43
15.0	14.9	0.71
50.0	50.3	1.19

Oxygen (O2)		
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)
20.7	20.7	0.25

Gas cylinders are traceable and details can be provided if requested.

CH4, CO2 readings recorded at: 30.5 °C/86.9 °F

Barometric Pressure: 29.15 "Hg

O2 readings recorded at: 20.7 °C/69.2 °F

Method of Test: The analyzer is calibrated in a temperature controlled chamber using reference gases. All analyzers are calibrated in accordance with our procedure ISP-17 using high purity grade gas.

All calibrations are performed in accordance with ISO 17025 at LANDTEC, an ISO 17025:2005 – accredited service facility through PJLA.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with NIST requirements.

The calibration results published in this certificate were obtained using equipment capable of producing results that are traceable through NIST to the International System of Units (SI). Certification only applies to results shown. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

LP015LNANIST-1.1

QED Instrument Services Facility - 2355 Bishop Circle West, Dexter, MI. 48130

WM02528

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PJLA ACCREDITED CALIBRATION LABORATORY NO. 66916

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Non Accredited results:

Pressure Transducers (inches of water column)					
Transducer	Certified (Low)	Reading (Low)	Certified (High)	Reading (High)	Accuracy
Static	0"	0.00"	40"	39.89"	2.0"
Differential	0"	0.00"	4"	4.01"	0.7"

Barometer (mbar)	
Reference	Instrument Reading
0987 mbar / 29.15 "Hg	0991 mbar / 29.25 "Hg

Additional Gas Cells		
Gas	Certified Gas (ppm)	Instrument Reading (ppm)
CO	500	506
H2S	200	201

End of Certificate

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